

ATC COMPONENTS TROUBLESHOOTING

Most ATC system problems are the result of improper or poorly made wiring connections. If some or all system components do not operate properly, **first** check that wiring connections are securely made. Check that ground connections have been made to locations that are indeed grounded to the vehicle electrical system, and make certain no fuses have blown as a result of accidental shorts. If a short persists, check to see if a mounting screw has inadvertently been driven through a wire. Pull on both ends of all solderless connections to insure solid locking between connector halves. Examine wires in connectors to insure they are properly seated in the connector cavities. Use an ohmmeter or a test lamp at both sides to confirm electrical continuity. Most electrical and wiring faults are easily identified and corrected with these techniques. If a specific system component is suspected, isolate its function in the diagnostic mode and determine whether or not it operates. All system components are interchangeable and easily replaced. If a failed component has been identified, contact your distributor for a replacement.

Listed below are some common problems and possible solutions. These are not all the problems that can be experienced with the heater/air conditioning systems, nor are all the possible causes/solutions to the problems listed noted here.

NO POWER TO ATC CONTROL PANEL BUTTON

- Check 8 and 10 pin connectors to Power Module to insure they are properly locked into place and that the circuits are in correct order (see Schematics).
- Verify that Control Module cables are plugged into Power Module. The cavities for the control module cables and the cables themselves are color-coded gray and black.
- Verify that electrical connection to the *battery supplied* 5 amp fused circuit is good and fuse is not blown.
- Verify that Power Module ground connection has been properly made.

Power Module Connections (Numbers correspond to numbers located above each connection on the Power Module. See ATC System Schematic.)

1 - Plug in ATC 10 pin harness connector.

2 - Plug in ATC 8 pin harness connector.

•**NOTE:** Insert connectors into Power Module with the locking tab down (against locking bar) and the terminal strip up.

CAUTION -- INSURE CONNECTORS ARE INSERTED PROPERLY BEFORE APPLYING POWER TO THE SYSTEM. APPLYING POWER WITH THE CONNECTORS IN UPSIDE-DOWN OR MISALIGNED WILL RESULT IN DAMAGE TO THE POWER MODULE.

3 - Control Module black cable (Wide Telephone type Jack)

4 - Interior Temperature Sensor red cable (Narrow Telephone type Jack)

5 - Control Module gray cable (Narrow Telephone type Jack)

Fan does not operate

- Check to see that Mode Switch is set in any position other than OFF
- Check to see that the Coolant Temperature Threshold Thermostat is working, as this will prevent the fan from running under certain conditions. The thermostat is located on the water valve and is identified by the two black wires exiting the valve. Check for continuity across the wires to insure the thermostat is operating properly (Warm = open, no continuity-fan will run; Cold = closed, continuity-fan will not run).
- Check electrical connections to the Mode Switch, and Blower Fan for continuity and correct polarity.
- Verify that main system fuse has not blown due to accidental short circuit.
- Verify that line filter connections to the power module are complete (non-polar connection)
- Check for faulty Blower Motor.

A/C compressor does not operate

- Check Control Panel to insure system is not in “A/C OFF” mode (word “OFF” illuminated next to snowflake symbol indisplay), which lock out the compressor.
- Check to see that Mode Switch is set in any position other than OFF.
- Check that main system fuse has not blown due to accidental short circuit.
- Check electrical connections to Mode Switch, Cold Control Thermostat, Low Pressure Switch, and Compressor Clutch Relay.
- Check for correct refrigerant charge.
- Check for faulty Compressor, Thermostat, Pressure Switch, or wiring.

System cools when heating is required, or heats when cooling is required.

- Verify that the Heater Valve(s) have been installed correctly with the flow direction arrow on the valve body properly oriented.
- Verify that valve(s) are operating correctly and not binding
- Verify that the cooling system has been refilled and bled after the heater valve was installed.
- Verify that Power Module has been properly programmed for normally closed (reverse logic) operation (see Power Module Programming diagram for correct jumper settings).

Cabin temperature and /or fan speed fluctuate erratically.

- Evaluate the Interior Temperature Sensor location for susceptibility to unwanted sources of hot or cold air, such as proximity to air vents, air leaks, or heat sources such as stereos, lights, etc.
- Verify that electrical connector to the Interior Temperature Sensor has been properly made and that circuits match.
- Check Aspirator Fan operation to make certain it is running. (Place a piece of tissue paper over the aspirator opening in the grill. Verify that the aspirator hose is securely connector to the aspirator fan and interior temperature sensor.

- Make certain no foreign matter (liquids, dust, etc.) has contaminated or obstructed the Sensor.

Control Module Displays Incorrect Exterior Temperature Readings.

- Check that the signal cable for the Exterior Temperature Sensor is securely plugged into the Exterior Temperature Sensor. Variations in temperature readings may occur dependent on vehicle conditions (moving, stationary) and mounting location of the sensor itself in respect to other heat sources (engine heat, generator exhaust, road surfaces, etc.)